

EXHIBIT 15

The selectable vehicle types are:

- Passenger Car
- Pick-up
- Van
- Sport-Utility
- Truck
- Trailer
- Dolly
- SAE Movable Barrier
- SAE Fixed Barrier

The Vehicle Database is available in the Vehicle Editor's Vehicle Information dialog (see Figure 2-47). After choosing the desired vehicle, HVE loads it into the Vehicle Editor for possible editing and/or use in the current case.

Tire Database

The Tire Database allows the user to select pre-defined tires, according to the following keys:

- Type
- Manufacturer
- Model
- Size

The *Manufacturer*, *Model* and *Size* keys are user-definable (see User Databases, in the following section). The selectable tire types are

- Passenger Car
- Light Truck
- Heavy (on-highway) Truck
- Mobile Home

The Tire Database is available in the Vehicle Editor, Tire Information dialog (see Figure 2-48). After choosing the desired tire, HVE assigns it to the current vehicle at the selected wheel location (e.g., Axle 1, Right Side).

Generic Databases

HVE includes databases for humans, vehicles and tires. These databases include generic data, that is, data which do not represent any specific human, vehicle or tire, but are representative of typical humans, vehicles and tires for a given size range. The generic databases were produced by the statistical analysis of a large number of humans, vehicles and tires (see reference 3.10, 4.9, 4.10, 4.11, 4.26), and contain reasonable estimates for all data necessary to

execute any HVE-compatible reconstruction or simulation model. Humans, vehicles and tires created using HVE's generic database may be modified and saved in custom databases, as described below.

Custom Databases

Vehicles and tires may be purchased in custom databases. A custom database differs from a generic database in that it contains actual vehicles (e.g., 1996 Ford Taurus 2-Dr Coupe) and tires (e.g., Goodyear Arriva, P195/75R14). Custom databases are available from EDC, as well as from independent suppliers (e.g., [4.27]). Custom databases often include 3-D geometry files for the vehicle body for use in DyMESH simulations, resulting in a life-like appearance. Individual vehicles are also available from EDC.

Tire Information: Acura 3.2TL 4-Dr (Axle No. 1, R... ? X)

Name: Advantage T/A

Type: PassengerCar

Manufacturer: B.F. Goodrich

Model: Advantage T/A

Size: P215/70R14

Source Database: EDC.db

☒ Dual Tires

Dual Tire Spacing(in) 12.00

Physical Data...

Friction...

Fy vs Slip Angle...

Fy vs Inclination Angle...

Slip vs. Roll-off...

☐ Copy To Other Side

OK Save As... Delete Cancel

Figure 2-48 The Vehicle Editor's Tire Information dialog provides access to the HVE Tire Database.

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